Woodlands Health
National Healthcare Group

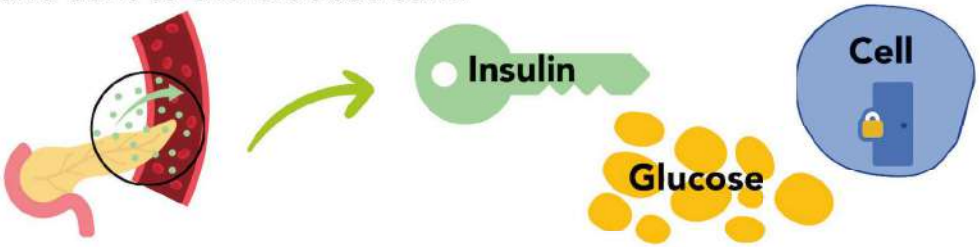
Better Health. With You.

Healthy Eating Guide for Diabetes

Diabetes is a condition when blood sugar (glucose) is higher than normal because of a lack of insulin (Type 1 Diabetes Mellitus) or when the body resists insulin (Type 2 Diabetes Mellitus).

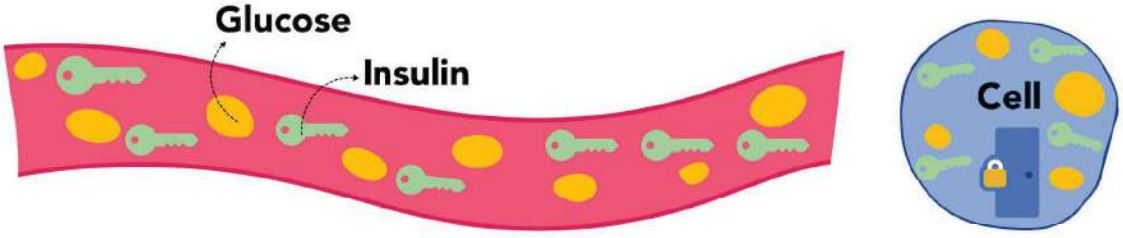
1

When food is consumed, carbohydrates in food are broken down into glucose and sent to the bloodstream.

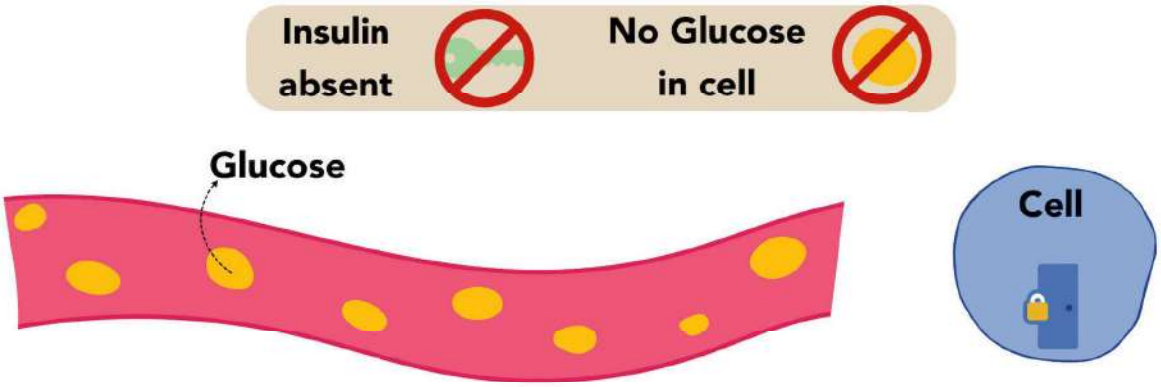


2 Insulin is produced in the pancreas in response to rising blood glucose levels after eating carbohydrates

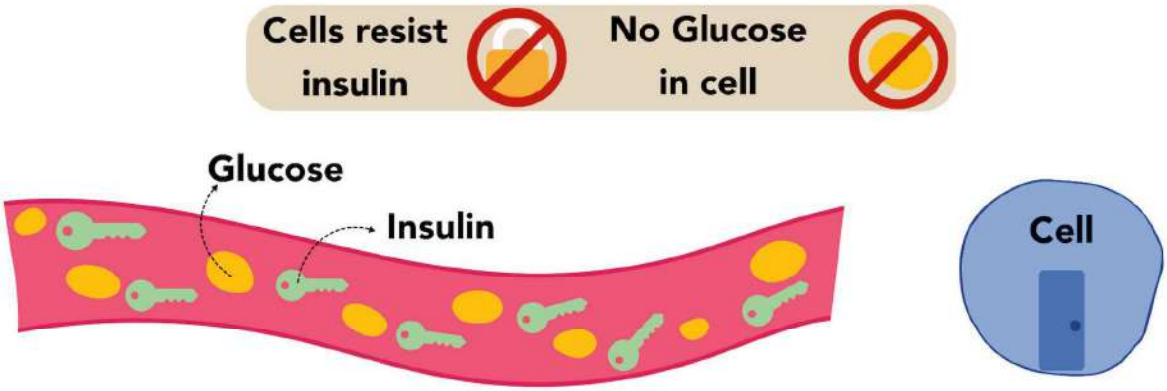
3 Insulin works as a key for glucose to enter the cells to be used as energy



4 In individuals without diabetes mellitus, insulin moves glucose into cells efficiently



5 With type 1 diabetes mellitus, the lack of insulin leads to glucose being unable to enter cells and remain in the bloodstream



6 With type 2 diabetes mellitus, the body is resistant to insulin which leads to glucose being unable to enter cells and remain in the bloodstream

Treatment for diabetes may differ based on the type of diabetes and blood sugar levels. To better manage this condition, it is important for all individuals with diabetes to:

Follow a healthy diet and lifestyle

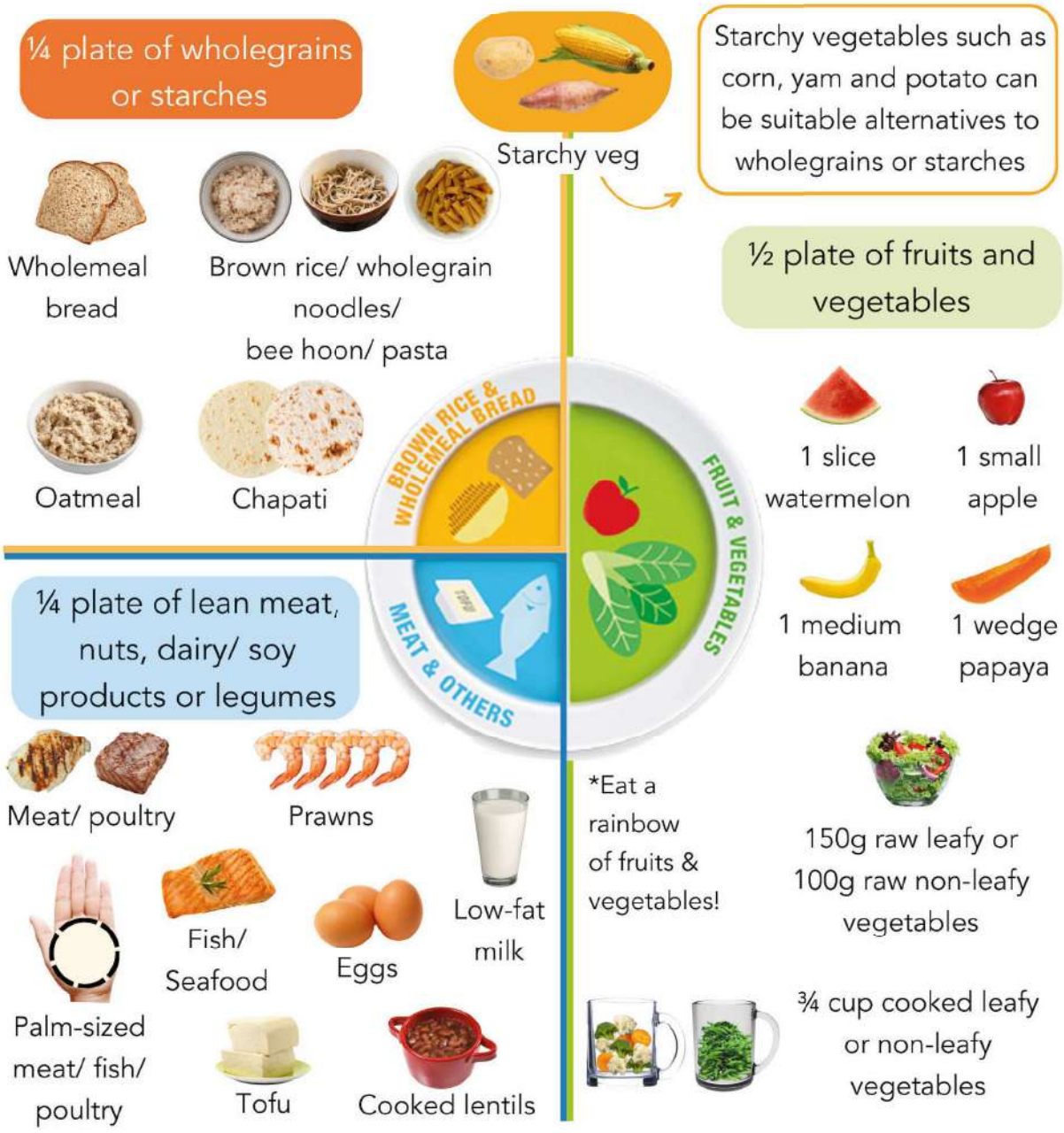
Perform regular blood sugar checks

Take oral medication(s) and/or insulin injection(s) as prescribed

Healthy Eating Tips for Optimal Blood Sugar Control

1. Use My Healthy Plate to Plan a Well-balanced Meal

My Healthy Plate is a visual guide created by Health Promotion Board for you to achieve a healthy and nutritionally-balanced diet.

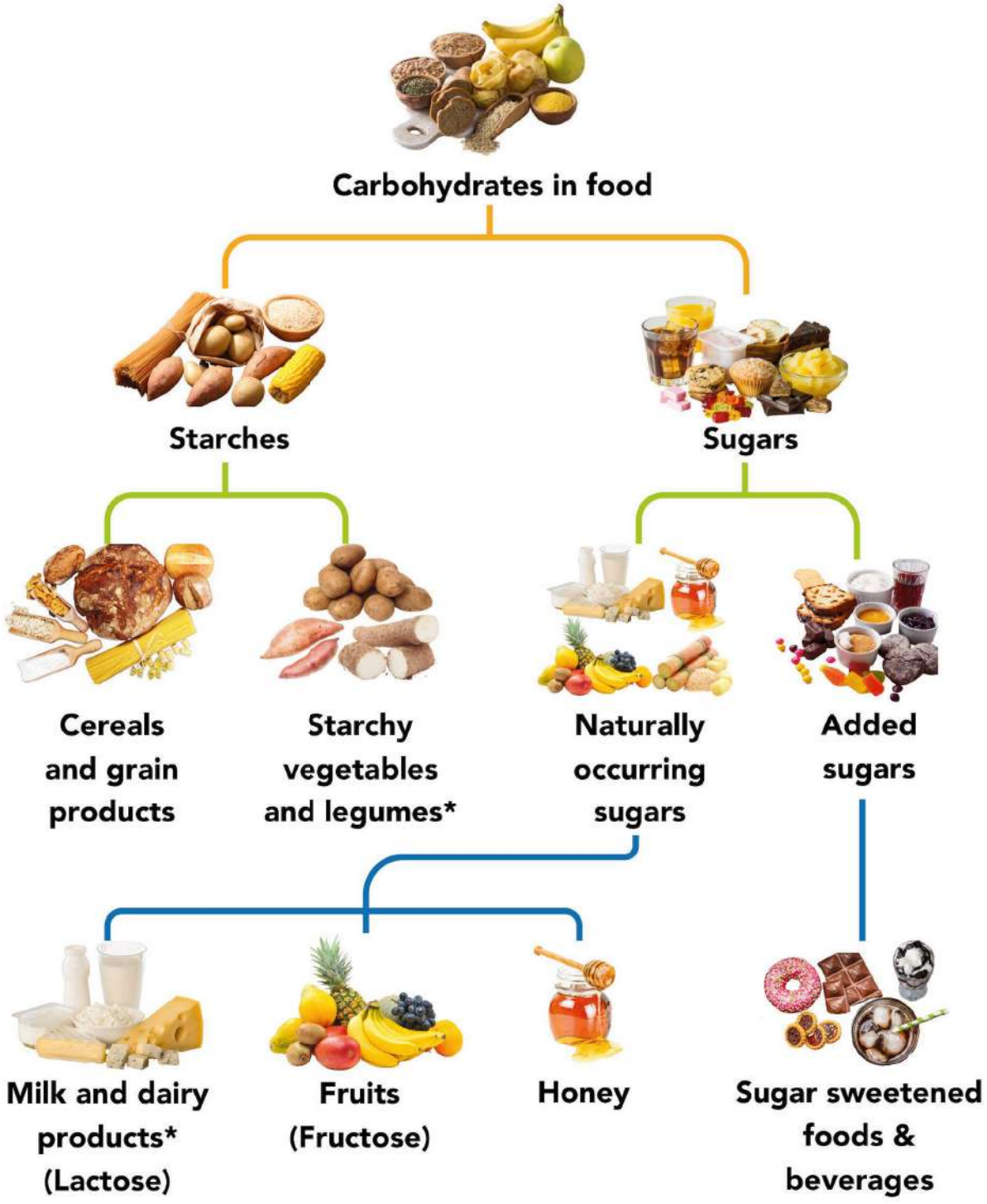


My Healthy Plate reproduced from https://www.healthhub.sg with permission by Health Promotion Board, Singapore

! Note: Check with your dietitian on the recommended portions for starches and protein-rich food

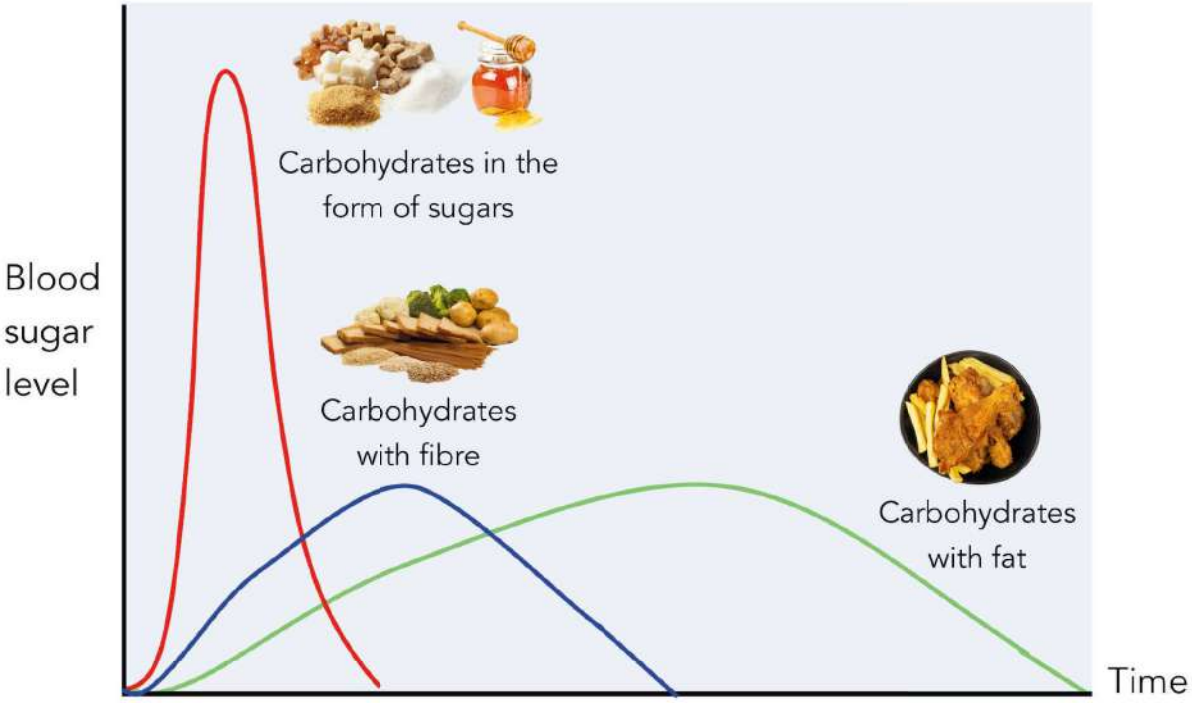
2. Know your Carbohydrates

Carbohydrate is the body's primary and preferred source of energy. In our diet, we consume carbohydrates in the form of starches and sugars.



*Some protein-rich food like legumes, milk and dairy products also contain carbohydrates. If consumed, its carbohydrate content should be accounted for in your daily carbohydrate intake.

The type of carbohydrate you eat affects how quickly glucose enters your blood. Different types of carbohydrates are broken down and absorbed into your bloodstream at different rates.



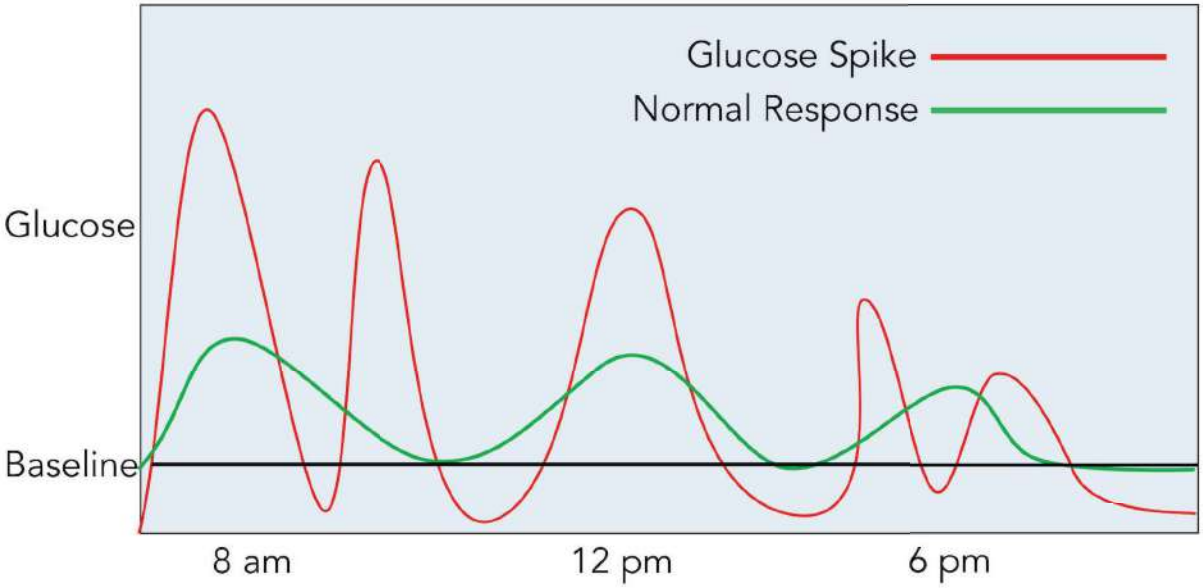
- Red line: carbohydrates in the form of sugars causes your blood sugar levels to peak much faster, resulting in unstable blood sugar levels

- Blue line: carbohydrates with fibre e.g. wholegrains, fruits and starchy vegetables help to slow down the rate at which your blood sugar level rises and peaks. A high fibre diet keeps you full longer and helps maintain a healthy gut!

- Green line: meals high in fat delay the breakdown of carbohydrates. This can make your blood sugar levels rise much later.

3. Keep your Meals Regular

Have regular meals by spacing your main meals 4 – 5 hours apart with an optional healthy snack in between. It is important to keep meals consistent and adhere to oral medication(s) or insulin injection(s) to prevent erratic blood sugar levels.



This graph compares the blood sugar pattern in 2 groups: those with regular meal timing and consistent carbohydrate intake (green line) vs those with irregular meal timing and inconsistent carbohydrate intake (red line).

Feeling Thirsty?

High blood sugar symptoms include extreme thirst. This can drive people with diabetes to crave cold, sweet drinks to quench their thirst. Be mindful of this sign and limit your intake of sugary beverages.

4. Go Easy on Sugar-sweetened Food and Drinks

When having meals

Consider having less rice or noodles during meals if you are planning to have desserts after

Choose frozen or fresh fruits instead of preserved/ dried fruits or fruit juices

When choosing drinks

Go for "sugar-free" beverages e.g. plain water, unsweetened tea/ coffee ("—Kosong") or diet soft drinks

Go for "Siew Dai" (less sweet) beverages if a sugar-free beverage is not available

Use a small amount of artificial or natural non-sugar sweetener for sweetness if necessary

Replace sugary drinks with water and add berries, citrus, mint, ginger or lemongrass for flavour

When choosing a snack

Go for healthier choices like a serving of fresh fruit, a small handful of non-fried unsalted nuts or 3 pieces of wholegrain crackers. You can also have a glass of unsweetened soymilk, low fat milk or a handful of cherry tomatoes.

If you are having dessert, choose a small serving or share with your family or friends

5. Go Easy on Food High in Fat

Fats do not convert to sugar when digested, instead they stay in our stomach longer. Fats slow down the digestion of carbohydrates in a meal, and prolongs the duration of high blood sugar levels.

Fats are high in calories and excessive intake can cause weight gain and obesity. Some ways to reduce fat intake:

	Choose lean meats or trim visible fats and skin on meat before cooking or eating
	Replace red or processed meat with fish, lentils, tofu or soy protein
	Choose low fat cooking methods (e.g. stir frying, grilling, baking, steaming, boiling, air-frying etc.)
	Limit deep fried foods to no more than twice a week
	Ask for less gravies and sauces
	Replace flavoured rice (e.g. nasi lemak, chicken rice) with plain white or brown rice
	Limit high fat tidbits and snacks (e.g. chips, pastries, cakes, cookies, frozen pizza, frozen fried food)

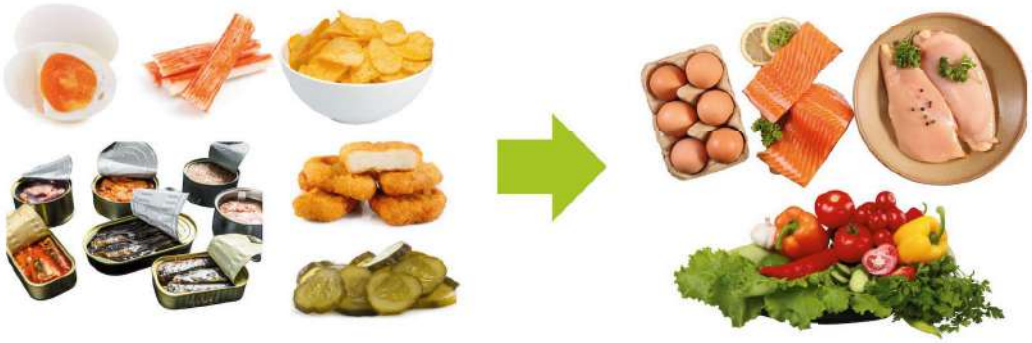
6. Choose Food Lower in Sodium

People with diabetes are at a higher risk of developing high blood pressure. Reduce sodium intake to keep your blood pressure in check!

During Home Cooking & Grocery Shopping

- Taste your food before adding seasonings
- Use salt, seasoning and sauces sparingly
- Use fresh herbs & spices to flavour food
- Use fresh vegetables instead of ready-to-use broth to cook soup
- Cook food that require simple preparation like broiled, baked or roasted meat or vegetables with no heavy sauces, breading or batter

- Choose fresh produce over processed or preserved food items



- Choose food products labelled with the "No Added Sodium" or "Lower in Sodium" Healthier Choice Symbols

No Added Sodium

Lower in Sodium

When Eating Out

- Leave soup behind & avoid excess gravy
- Avoid dipping sauces or condiments
- Choose plain rice over flavoured rice

	Where is the sodium?	How to reduce sodium intake
Fishball Noodle (Soup)	• Fishball • Soup • Sauces	• Leave soup behind • Avoid dipping soy sauce
Nasi Biryani	• Gravy • Seasoning for rice and meat	• Go easy on the gravy • Share this dish • Choose plain rice
Chicken Masala	• Gravy • Seasoning for meat	• Go easy on the gravy • Share this dish
Fast Food	• Salt in fries • Processed meats • Sauces	• Ask for unsalted fries • Limit fast food intake to once a week • Avoid dipping sauces

7. Limit Alcohol

Alcohol can cause low blood sugar levels, especially if you are on insulin or certain types of oral medication

Alcohol can cause low sugar levels when taken on an empty stomach. Make sure to have some carbohydrate-containing foods before or while drinking.

Choose unsweetened soda to mix with liquor instead of sweetened soda

Excessive intake of alcohol can contribute to overweight and obesity. Should you wish to drink, limit to 2 standard drinks for men, and 1 standard drink for women.

1 Standard Drink = 10g Alcohol

330ml Beer 100ml Wine 30ml Spirits

8. Stay Active

Apart from following a healthy diet, regular physical activity can also help to improve your blood sugar control and maintain a healthy body weight.

- Aim for 150–300 minutes of moderate-intensity aerobic exercise; or 75–150 minutes of vigorous-intensity aerobic exercise; or a mix of both each week

It is important to plan ahead to prevent low blood sugar levels during or after your activity.

Contributed by Nutrition & Dietetics Service, Allied Health Services

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Information shared is accurate as of April 2024 and subject to revision without prior notice.

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